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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,683	07/21/2003	Ramesh Nallur	A-8378	5317

7590 07/25/2008

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EXAMINER	
MONTOYA, OSCHTA I	

ART UNIT	PAPER NUMBER
2623	

MAIL DATE	DELIVERY MODE
07/25/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/623,683	NALLUR ET AL.	
	Examiner	Art Unit	
	OSCHTA MONTOYA	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 March 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-40 and 42* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-40 and 42* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claim1-40 and 42 have been considered but are moot in view of the new ground(s) of rejection.

2. In response to applicant's argument, on page 10, that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the timestamp analysis function is perform by the set top box) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

3. In response to applicants' argument, on page 10 and 11, that Moeller fails to teach "receiving from a video server a second video stream configured to enable a seamless transition to the trick-mode operation", Moeller clearly teaches that the server outputs normal play streams and trick-play streams in order to enable a seamless transition to the trick-play operation (figure 6 and 8, Col. 3, lines 34-51 and Col. 11, lines 1-50).

4. In response to applicants argument, on page 12, that Moeller fails to teach "parsing a stuffing transport packet (STP) to extract a time value corresponding to the current video picture", applicants should note that Moeller teaches that each picture or

frame also includes a picture header which identifies the frame and includes information for that frame, also Moeller teaches sequence headers which includes presentation timestamps that identify the start of a video sequence (Col. 3, lines 3-33 and Col. 9, line 31-37).

5. In response to applicants' argument, on page 9, that Moeller fails to teach "using information provided by a video decoder to identify a first video picture to be decoded", applicants should note that Moeller teaches that the sequence header is required by the decoder in order to display the video sequence (Col. 3 lines 21-23). Also it is notoriously well known in the art that a decoder is needed in order to process a MPEG stream, as admitted by the applicants in the original specification (page 1, lines 23-28).

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-14 and 16-40 are rejected under 35 U.S.C. 102(b) as being anticipated by Moeller et al., US 5,828,370.

For **Claim 1** Moeller teaches:

a method for providing a seamless transition between video play-back modes, (Column 4 Lines 47-51) comprising the steps of:

storing a video stream in memory (Col. 8 Lines 15-19);

receiving a request for a trick mode operation (Col. 12 Lines 1-7);

responsive to receiving the request for a trick mode operation (Col. 12 Lines 34-37), using information provided by a video decoder to identify a first video picture to be decoded (Col. 3 Lines 9-13 and 21-23; and Fig. 5 Element 104 with Col. 9 Lines 31-35);

decoding the first video picture (Col. 13 Lines 9-14); and

outputting the first video picture to a display device (Col. 4 Lines 22-26).

For **Claim 2** as discussed in independent Claim 1, Moeller further teaches:

decoding and outputting a second video picture (Col. 13 Lines 21-22) wherein the first video picture and the second video picture are part of a group of pictures (Col. 11 Lines 34-36, note frames within a group of pictures compose the video stream).

For **Claim 3** as discussed in independent Claim 1, Moeller further teaches:

the information provided by the video decoder is a time value that is associated with the first video picture (Col. 9 Lines 31-35).

For **Claim 4** as discussed in independent Claim 1, Moeller further teaches:

the first video picture is adjacent in display order to another video picture that was being output to the display device when the request for the trick mode

operation was received (Col. 7 Lines 24-33 and 38-43).

For **Claim 5** as discussed in independent Claim 1, Moeller further teaches:

the video stream is received from a headend (Fig. 1 Elem. 50 with Col. 6 Lines 18-23).

For **Claim 6** as discussed in independent Claim 1, Moeller further teaches:

the memory is non-volatile memory (Col. 8 Lines 42-48, note CD-ROM and DVD disks are types of non-volatile memory).

For **Claim 7** as discussed in independent Claim 1, Moeller further teaches:

storing information related to the video stream in memory (Fig. 6 with Col. 4 Lines 34-41 and Col. 13 Lines 9-14).

For **Claim 8** as discussed in Claim 7, Moeller further teaches:

a demultiplexing system (Col. 1 Lines 22-23 and Col. 7 Lines 2-11) uses data embedded in the video stream to generate the information related to the video stream (Col. 9 Lines 31-36 and 52-59, and Fig. 6).

For **Claim 9** as discussed in Claim 7, Moeller further teaches:

the information related to the video stream comprises an index table (Fig. 6 with Col. 8 Lines 55-61).

For **Claim 10** as discussed in Claim 9, Moeller further teaches:

the index table identifies when each of a plurality of pictures within the video stream was stored in memory relative to a point in time (Col. 10 Lines 4-20 with Col. 11 Lines 24-31).

For **Claim 11** as discussed in Claim 10, Moeller further teaches:

the point in time corresponds to when recording of the video stream commences (Col. 10 Lines 4-20).

For **Claim 12** as discussed in Claim 9, Moeller further teaches:

the index table associates time values with respective video pictures within the video stream (Fig. 6 with Col. 49-58).

For **Claim 13** as discussed in Claim 9, Moeller further teaches:

the index table associates values with respective video pictures within the video stream (Fig. 6 with Col. 9 Lines 51-58), the values being indicative of a display order of the pictures within the video stream (Col. 6 Lines 52-54).

For **Claim 14** as discussed in Claim 9, Moeller further teaches:

the index table identifies storage locations of respective picture start codes (Fig. 6 with Col. 9 Lines 52-57, note the index tables map "normal play time" to a *file offset* which corresponds to an entry point into a video stream).

For **Claim 16** as discussed in Claim 9, Moeller further teaches:

the index table identifies storage locations of respective sequence headers (Col. 9 lines 31-37 and 52-57).

For **Claim 17** as discussed in independent Claim 1, Moeller further teaches:

the trick mode operation is one of a fast -play mode, a rewind mode, or a play mode (Col. 4 Lines 27-31 with Col. 11 Lines 1-4).

For **Claim 18** as discussed in independent Claim 1, Moeller further teaches:

the information provided by the video decoder identifies a normal playback time required to reach the first video picture from a beginning of the

video stream (Col. 10 Lines 4-20).

For **Claim 19** as discussed in independent Claim 1, Moeller further teaches:

examining information in an index table (Col. 11 Lines 1-5);

examining annotation data corresponding to the video stream (Fig. 6 with Col. 9 Lines 31-37 and Col. 11 Lines 1-5); and

determining an entry point for fulfilling the trick mode request (Col. 11 Lines 1-5) responsive to the annotation data and the information in the index table (Fig. 6 with Col. 9 Lines 31-37).

For **Claim 20** as discussed in independent Claim 1, Moeller further teaches:

the method is implemented by a television set-top terminal (Col. 6 Lines 66-67 through Col. 7 Lines 1-7; with Col. 13 Lines 11-14), and wherein the display device is a television (Col. 6 Lines 56-65).

For **Claim 21** Moeller teaches:

A method comprising the steps of:

receiving a first video stream from a video server, the video stream comprising a plurality of video pictures (Col. 12 Lines 26-32);

decoding a current video picture from among the plurality of video pictures (Col. 7 Lines 4-11 with Col. 11 Lines 56-61, note displaying a streamed video through a set top box entails decoding a current video picture among a plurality of pictures);

receiving user input requesting a trick-mode operation (Col. 12 Lines 1-7);

transmitting a value associated with the current video picture and information identifying the trick mode operation to the video server (Col. 12 Lines 34-44); and

receiving from the video server a second video stream configured to enable a seamless transition to the trick-mode operation (Col. 3 Lines 34-51 with Col. 11 Lines 1-5).

For **Claim 22** as discussed in independent Claim 21, Moeller further teaches:

the value associated with the current video picture is a time value (Col. 13 Lines 8-11).

For **Claim 23** as discussed in Claim 22, Moeller further teaches:

the time value is relative to a beginning of the first video stream (Col. 13 Lines 5-11).

For **Claim 24** as discussed in independent Claim 21, Moeller further teaches:

the value associated with the current video picture enables identification of a storage location corresponding to the video picture (Col. 12 Lines 34-44, and Col. 12 Lines 64-67 through Col. 13 Line 1).

For **Claim 25** as discussed in independent Claim 21, Moeller further teaches:

the trick mode operation is one of a fast play mode, a rewind mode, or a play mode (Col. 13 Lines 23-31).

For **Claim 26** as discussed in independent Claim 21, Moeller further teaches:

the method is implemented by a television set-top terminal (Col. 6 Lines 56-67 through Col. 7 Lines 1-7, with Col. 13 Lines 11-14);

the display device is a television (Col. 6 Lines 58-60); and

the video server is located at a headend (Fig. 1 Elem. 50 with Col. 6 Lines 18-23).

For **Claim 27** as discussed in independent Claim 21, Moeller further teaches:

one of the video pictures in the second video stream is temporally adjacent to the current video picture (Col. 11 Lines 1-5, note Moeller teaches switching between equivalent positions within a trick play stream and a normal speed stream; thus a frame contained within a second stream will be displayed immediately following [temporally adjacent] the last frame displayed from a previous stream).

For **Claim 28** Moeller teaches:

a method for providing a seamless transition between video play-back modes (Col. 11 Lines 1-5), comprising the steps of:

decoding a current video picture (Col. 7 Lines 4-11 with Col. 9 Lines 21-29, note the set top box taught by Moeller decompresses and displays a video stream);

parsing a stuffing transport packet (STP) comprising a time value corresponding to the current video picture (Col. 3 Lines 4-11 with Col. 9 Lines 31-37); and

storing the time value in memory (Fig. 6 with Col. 9 Lines 52-57 with Col. 10 Lines 33-40 and Col. 13 Lines 9-14).

For **Claim 29** as discussed in independent Claim 28, Moeller further teaches:

using the time value to identify a location from which to begin a trick mode operation within a video presentation (Col. 11 Lines 1-5).

For **Claim 30** as discussed in Claim 29, Moeller further teaches:

the location corresponds to the current video picture (Col. 3 Lines 36-45 and Col. 4 Lines 46-51).

For **Claim 31** as discussed in Claim 29, Moeller further teaches:

the location corresponds to a video picture that is adjacent in display order to the current video picture (Col. 11 Lines 1-5 and Col. 13 Lines 23-30 note, the frame referenced following the jump trick mode operation is displayed immediately following the picture that was being displayed before the trick mode operation).

For **Claim 32** as discussed in independent Claim 28, Moeller further teaches:

the trick mode operation is one of a fast play mode, a rewind mode, or a play mode (Col. 4 Lines 27-31 with Col. 11 Lines 1-4).

For **Claim 33** as discussed in independent Claim 28, Moeller further teaches:

the time value is correlated to a normal play-time from a beginning of a video stream to the current video picture (Col. 10 Lines 4-15).

For **Claim 34** as discussed in independent Claim 28, Moeller further teaches:

the method is implemented by a video decoder (Fig. 4 Elem. 74 with Col 4 Lines 27-44, note the video server decodes video streams).

For **Claim 35** Moeller teaches:

a system for providing a seamless transition between video play-back

modes (Col. 4 Lines 46-51), comprising:

a memory device for storing a video stream that includes a current video picture (Fig. 4 Elem. 90 with Col. 8 Lines 15-22);

a processor that is coupled to the memory device (Fig. 4 Elem. 80 with (Col. 8 Lines 10-15); and

a video decoder that is coupled to the processor (Fig. 4 Elem. 74 with Col. 8 Lines 18-23), and that is configured to:

decode the current video picture (Col. 8 Lines 41-52),

parse a stuffing transport packet (STP) that includes a time value corresponding to the current video picture (Col. 3 Lines 8-13 with Col. 9 Lines 31-42), and

store the time value (Fig. 6 with Col. 9 Lines 52-57 with Col. 10 Lines 33-40 and Col. 13 Lines 9-14).

For **Claim 36** as discussed in independent Claim 35, Moeller further teaches:

the processor is programmed to use the time value to identify a location from which to begin a trick mode operation within a video presentation (Col. 11 Lines 1-5).

For **Claim 37** as discussed in Claim 36, Moeller further teaches:

the location corresponds to the current video picture (Col. 3 Lines 36-45 and Col. 4 Lines 46-51).

For **Claim 38** as discussed in Claim 36, Moeller further teaches:

the location corresponds to a video picture that is adjacent in display order

to the current video picture (Col. 11 Lines 1-5 and Col. 13 Lines 23-30 note, the frame referenced following the jump trick mode operation is displayed immediately following the picture that was being displayed before the trick mode operation).

For **Claim 39** as discussed in independent Claim 35, Moeller further teaches:

the trick mode operation is one of a fast play mode, a rewind mode, or a play mode (Col. 4 Lines 27-31 with Col. 11 Lines 1-4).

For **Claim 40** as discussed in independent Claim 35, Moeller further teaches:

the time value is correlated to a normal play-time from a beginning of the video stream to the current video picture (Col. 10 Lines 4-15).

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claim 42 is rejected under 35 U.S.C. 102(e) as being anticipated by Demas et al., US 2003/0093800.

Regarding claim 42, Demas discloses a set-top terminal comprising:

a processor (paragraph 56, 61, and 65);

memory storing program instructions thereon (Paragraph 65);

a storage device storing a compressed video stream (paragraph 57-58 and 61-62);

a decoder (200-figure 2) configured to:

decode a compressed picture, responsive to a playback request (paragraph 42-44);

parse a stuffing transport packet (STP) to extract a time value (entry point)

corresponding to the decoded picture (paragraph 69); and

store the extracted time value corresponding to the decoded picture (paragraph 76-77);

wherein the processor is configured by the program instructions to:

receive a user request for trick mode play of a compressed video stream (paragraph 65);

responsive the user request for trick mode play, receive the stored time value

from the decoder (paragraph 72);

identify, based on the received time value, a picture location (paragraph 69); and

retrieve a picture from the stored compressed video stream using the identified picture location (paragraph 43, 47, and 114).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Moeller et al. in view of Hallberg, US 7,027,713.

For **Claim 15** as discussed in Claim 9, Moeller further teaches:

the index table identifies picture locations (Fig. 6 with Col. 10 Lines 36-40)

Moeller does not expressly teach:

the index table identifies picture types

Hallberg teaches:

an index table identifies picture types (Fig. 7 with Col. 8 Lines 26-33)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to identify picture types as taught by Hallberg, within the index table taught by Moeller. The motivation would have been to allow for the identification of intra frames, which provide an entry point into a video stream.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to OSCHTA MONTOYA whose telephone number is (571)270-1192. The examiner can normally be reached on Monday/Friday 7:30 to 5:00 off every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Grant can be reached on (571) 272-7294. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

OM

/Christopher Grant/
Supervisory Patent Examiner, Art Unit 2623